

ABSTRACT OF THE DISCLOSURE

A composition and method for forming investment casting shells includes using colloidal silica, zircon flour, and fused silica in a slurry which is applied to a pattern. After the slurry is applied to the pattern, it is allowed to partially or completely solidify. After the shell has solidified, the pattern may be melted or otherwise removed. A molten material is introduced into the shell and allowed to cool to form an article. Finally, the shell is broken away or otherwise removed from the article. The improved shell slurry composition and corresponding method minimizes pattern-to-pour cycle times and is environmentally friendly.